

NATURAL RESOURCES CONSERVATION SERVICE

VIRGINIA CONSERVATION PRACTICE STANDARD

LAND SMOOTHING

(Ac.)

CODE 466

**DEFINITION**

Removing irregularities on the land surface.

Construction operations shall be carried out in such a manner that erosion and air and water pollution are minimized.

**PURPOSE**

To improve surface drainage, provide for more uniform cultivation, and improve equipment operation and efficiency.

Irregularities shall be smoothed to the degree required for the planned use.

The land to be smoothed shall be cleared of vegetative matter and trash.

Potential impacts to existing utilities shall be determined.

**CONDITIONS WHERE PRACTICE APPLIES**

This practice applies on areas where depressions, mounds, old terraces, turn-rows, and other surface irregularities interfere with the application of needed soil and water conservation and management practices.

It is limited to areas having adequate soil depth or where topsoil can be salvaged and replaced.

This practice does not apply to the regular maintenance on irrigated land or on land that has been modified using National Conservation Practice Standards *Precision Land Forming (462)* or *Irrigation Land Leveling (464)*.

**CONSIDERATIONS**

Where possible, the ground surface should be plowed or disked prior to smoothing.

The effects of land smoothing on the water budget, especially on volumes and rates of runoff, infiltration, and evaporation shall be considered.

Consideration should be given to the effects of land smoothing on erosion and the movement of sediment and soluble substances attached to sediment carried by runoff.

The potential for earth moving to uncover or redistribute toxic materials, such as saline soils should be evaluated.

Assess the effects on wetland hydrology and/or wetland wildlife habitat.

Potential for changes in plant growth and transpiration because of changes in the volume of soil water should be considered.

Effects on the use and management of nutrients and pesticides should be evaluated.

**CRITERIA**

The extent of rough grading required and tolerances of the finished smoothing job shall be in keeping with the requirements of the planned cropping system.

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.

Consider the effects on downstream water quality.

## **PLANS AND SPECIFICATIONS**

Plans and specifications for land smoothing shall be in keeping with this standard and shall describe the requirement for applying the practice to achieve its intended purpose.

### **DESIGN DATA**

As a minimum, record and maintain the following planning and design data on either the drawings or in the engineering field book, as appropriate:

1. Completed Form VA-EE-1.
2. Location map. Include tract number, field number(s) and acreage in field(s).
3. Spoil disposal site.

### **CHECK DATA**

As a minimum, record and maintain the following check data:

1. Certification that the practice meets standards and specifications. Note any exceptions.
2. Statement that excess vegetation and debris have been disposed of in a way that is environmentally sound, and that disturbed soil that will not be cropped has been revegetated.

## **OPERATION AND MAINTENANCE**

Actions shall be carried out to ensure that this practice functions as intended. Such actions shall include performing maintenance when needed to ensure that surface irregularities are maintained at the degree of smoothness required.

## **REFERENCES**

1. Engineering Field Handbook.
2. Virginia Field Office Technical Guide (FOTG), Section IV.

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**VIRGINIA CONSERVATION PRACTICE STANDARD**

**LAND SMOOTHING**  
**Approved Practice Narrative**  
**(Acre)**

**CODE 466**

466 D1 Land Smoothing: Remove irregularities on the land surface that interfere with the application of planned conservation practices.

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